plate-shaped support includes a pyramid angle, wherein each said pyramid angle comprises an angle measurement differing from an angle measurement of any other pyramid angle.

26. (Amended) Gemstone according to claim 16, wherein [the pyramid angle of] each said at least one pyramid-shaped depression [is] includes a pyramid angle measuring approximately 109°.

27. (Amended) Gemstone according to claim 16, wherein [grain boundaries of] each said precious stone layer (1) includes grain boundaries, said grain boundaries [are] aligned in a column shape.

REMARKS

The present amendment is submitted in response to the Office Action of July 19, 2000, which set a three-month period for response, making this amendment due by October 19, 2000.

Claims 16-31 are pending in this application.

Claims 20, 21, and 25-27 stand rejected under 35 U.S.C. 112, second paragraph, for indefiniteness. Claims 16-18, 20, 22-27 and 29-31 stand rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,882,786 to Nassau et al in view of U.S. Patent No. 2,521,846 to Gregory. Claims 19, 21 and 28 were rejected under 35 U.S.C. 103(a) as obvious over Nassau et al in view of Gregory as applied to claim 16 above, and further in view of U.S. Patent No. 5,431,028 to Lampert et al.

Turning first to the rejection of the claims under Section 112, second paragraph, Applicant submits that the term "hard metals", as used in claim 20, is a

term of art in the relevant technical area (i.e., cemented carbides, etc.), and that claim 20 needs no further clarification.

With regard to the Examiner's comments regarding the "pyramid angle", as set forth in claims 26 and 26, the angles of the various pyramid-shaped depressions in the plate-shaped support can differ on a single support, whereby the reflective qualities of the synthetic gemstone layer can be obtained. The support for the gemstone is not pyramid-shaped. In the surface of the support, where the gemstone is supported, the pyramid-shaped depressions are worked in, which can have various pyramid angles. With these pyramid angles, the angle on the tip shows a pyramid.

Applicants have amended claims 21 and 25-27 accordingly to more clearly recite the invention and provide proper antecedent basis, as necessary. It is believed these amendments obviate the rejections under Section 112, and Applicants therefore request withdrawal of these grounds for rejection.

Looking next at the substantive rejections, Applicants respectfully submit that none of the cited references, either alone or in combination, teach or suggest the invention as claimed.

With the present invention, synthetic gemstones are produced from precious stone layers by vapor phase deposition on large surface areas which, despite unfavorable dimensions (i.e., the limited thickness of such layers) provide an attractive appearance. The gemstone comprises a preferably plate-shaped support or substrate having one surface that is provided with at least one pyramid-shaped

depression.

In contrast, Nassau et al discloses a gemstone made from silicon carbide of 0.25 to 5 carats (the size and weight of a natural diamond), which are cut out of a synthetic silicon carbide crystal and subsequently polished like a gemstone (Nassau et al, column 3, lines 8-30). Then, in the traditional manner, the gemstone is placed on a piece of jewelry, for example in a setting of a ring. Since the upper or face surfaces of these gemstones can be damaged during retention in a piece of jewelry, a synthetic diamond layer is added as a protective layer (Nassau et al, column 3, lines 59-67). This diamond layer, however, imparts no decorative characteristics to the silicon carbide gemstone. These characteristics are the result of grinding or polishing the silicon carbide stone.

The Gregory patent discloses decorative articles made of glass. These articles are produced by smelting glass in a mold or shape and then cooling the molds to achieve a determined configuration (Gregory, column 4, lines 38-72).

The patent to Lampert et al relates to a jewelry stone with synthetic diamond "baguettes". These "baguettes", however, are not precious stones; rather, the stone includes a reflective metal surface with one or more concave indentations formed therein. The indentations have a plurality of faceted reflective surfaces or corrugations, which are intended to reflect light like a natural diamond (Lampert et al, column 1, lines 45-55).

None of these cited references discloses or suggests the gemstone of the present application. The practitioner skilled in the art would not be led to the present

invention by combining these references, as the Examiner has suggested.

The present invention provides unexpected and surprising results, in that with a thin surface-shaped synthetic gemstone layer, superior light-reflecting qualities are obtained, especially since the pyramid-shaped depressions are disposed on the underside of the stone when it is placed on the support.

Therefore, Applicants respectfully submit that the claims, as amended, provide patentably distinct features neither taught nor suggested by any of the cited references, whether alone or in combination. Applicants therefore respectfully request reconsideration of the claims and withdrawal of the rejections under Section 103.

In light of the foregoing amendments and arguments in support of patentabiliy, Applicants believe that this application now stands in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call from her in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully Submitted,

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